

preloaded, filled syringes S and is designated the “ready” subcompartment 2a. The other, preferably rearward second subcompartments 2b is provided for used or empty syringes S (not shown) and is designated the “used” subcompartment 2b.

[0039] In addition to compartments 2a prepacked with filled syringes S, drug trays 1 in each class will also preferably provide also initially empty compartments 2 (including both empty first and second subcompartments 2a and 2b). These empty compartments 2 are provided for use with drugs which are frequently but not always used and are therefore considered not strictly “standard”. The additional compartments 2 can, for example, be supplied with prefilled syringes S from a standard drug drawer D in the anaesthetists trolley T before starting the anaesthetic procedure.

[0040] Coding systems and/or labelling will also be used in relation to the additional components 2 by inserting, adhering or otherwise positionally placing both on the syringe S and the additional compartment 2 appropriate codes such as colour codes or other identifier means.

[0041] Once a syringe S has been used, if further doses are required these can be obtained by reloading the relevant “ready” subcompartment 2a of the tray 1 with additional prefilled syringes S from a source, perhaps a colour coded drug drawer D elsewhere on the anaesthetists trolley, sympathetically or correspondingly set out and possibly similarly or otherwise coded for ready verification. Used syringes S will accumulate in the relevant “used” subcompartment 2b of the tray 1 as the anaesthetic proceeds and be retained there until the completion of the whole procedure, thus providing ready verification of the identity and amount of drug used at any point in the procedure.

[0042] There will always be a certain number of drugs which are not readily available in prefilled syringes S. In most instances, it is envisaged that these drugs will be infrequently used, or are perhaps drugs which are not stable in a plastic syringe S for long periods. A section of the tray 1, for example a righthand section 5 thereof is designed to accommodate drugs only available in ampoules.

[0043] In the preferred form of the invention, the coded compartments 2 in this section comprise three subcompartments, a forwardmost compartment 2c for the placement of ampoule A from a colour coded ampoule drawer (not shown) elsewhere in the drug trolley, the middle subcompartment 2e for placement of the syringe S conventionally filled from the ampoule A and colour coded; together with a rearmost compartment 2c for an empty ampoule A (not shown) after the syringe S has been filled.

[0044] It will be appreciated that in such a system, keeping track of syringes S and ampoules A until completion of the procedure maintains a visually striking monitor of drug administration and at any time it is possible for practitioners to check at a glance what has been administered and, equally important what has not been, to reduce the potential for error to the individual anaesthetist and also to enhance continuity where one anaesthetist hands over to another during long anaesthetics.

[0045] Whilst the invention has been described with reference to a series of “standard” combinations of anaesthetics, it is to be appreciated that alternative arrangements can also provide for the use of, for example, an emergency tray

of a generally similar specification to the standard anaesthetics tray 1 prepackaged with prefilled colour codes syringes S of drugs used in an anaesthetic emergency. An emergency drug tray of this type may have the greatest potential to reduce drug error since it is during an emergency that errors are most likely to occur. The emergency tray 1 may be stocked or restocked from an emergency “reserve” drug drawer D in a similar way to the standard trays 1.

[0046] The invention envisaged that additional monitoring (including preferably verification, and/or recordal) systems are incorporated into the apparatus. It is envisaged in the preferred form of the invention that each syringe S will incorporate some identification means comparable against predetermined data, for example in a prepared database, to positively identify the contained drug, for example by class, individual drug, concentration and other relevant data to the procedure. Preferably much of such information is incorporated into a conveniently arranged code positioned on the syringe S such as a bar code, however in alternative forms of the invention, other identification means may be provided, for example electronically stored and/or readable identification apparatus, magnetic or digital devices, data information and the like.

[0047] In this arrangement, as each syringe S is taken from the ready compartment 2a, it may be, for example, “swiped” under a conveniently positioned reader as part of the drug administration routine the detected code will be compared against the database information and drug identified, whereupon a calm computer generated voice will announce the name and dose of the drug just swiped optionally coupled with a visual display. The response will preferably occur at a time anticipated to be before the actual drug administration. It is envisaged that this will considerably reduce the risk of drug error by supplementing the anaesthetist’s already received information with further auditory/visual information to hopefully allow correction of any errors before administration.

[0048] In the preferred form of the invention, information received by the monitoring apparatus will be conveyed and stored as a record, for example in a microprocessor based device including a database of drug, drug use and patient information loaded thereon. It is anticipated that the practitioner may, on receiving confirmation of the identity of syringe S from the computerised announcement or verification may physically confirm, for example by depressing a “confirm” key, to confirm verification and/or administration, by taking such action either prior to or subsequent to administration of the identified drug. Measuring apparatus can also optionally be provided connected either directly or indirectly with the syringe S to monitor, measure and record amounts of such drug administration, regardless of the syringe S volume as loaded.

[0049] In this way, it will be appreciated that both physical confirmation and verification may be provided, and further, the apparatus will provide a record of the actions of the practitioner. It is envisaged that such a record may be valuable subsequently, should complications arise, or other checking be considered appropriate, and could also be integrated into or connected with known recording apparatus recording general operations monitoring equipment.

[0050] The monitoring method and apparatus may incorporate a series “standard” or “specific” administrations